

# Notice of Allowability

Application No.

10/090,954

Examiner

Jeff Piziali

Applicant(s)

KATO, FUMIHIKO

Art Unit

2629

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 6 September 2006.
2. ☒ The allowed claim(s) is/are 1-7, 12, and 13 (renumbered as claims 1-9).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Jeff Piziali  
19 September 2006

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Allowable Subject Matter*

2. Claims 1-7, 12, and 13 (renumbered as claims 1-9) are allowed.
3. The following is an examiner's statement of reasons for allowance:

The present invention comprises an LCD control unit for driving an LCD panel in an LCD device. The closest prior art, Tamai et al. (US 6,160,533) discloses an LCD control unit for driving an LCD panel in an LCD device, the LCD control unit, comprising: a signal controller [Fig. 1; 39] for generating a voltage address signal [Fig. 4; LS] and a polarity control signal [Fig. 4; POLARITY INVERSION] (see Column 14, Line 27 - Column 15, Line 34); a voltage generator block [Fig. 4; 62], coupled to the signal controller (see Fig. 1), for internally generating a plurality of (n)  $\gamma$ -voltage levels [Fig. 4; at AS1-8] and a plurality of (m) Vcom-voltage levels [Fig. 1; Q]; the voltage generator block including a voltage selecting block [Fig. 4; 61], wherein output of the voltage generating block is selected by the voltage selecting block from the plurality of (n)  $\gamma$ -voltage levels and the plurality of (m) Vcom-voltage levels according to a value of the voltage address signal input to the voltage generator block; an impedance converter block [Fig. 4; AS1-8], coupled to the signal controller (see Fig. 1) and coupled to and separate from the

Art Unit: 2629

voltage generator block (see Fig. 4), that converts input impedances of the  $\gamma$ -voltage levels and the Vcom-voltage levels provided by the voltage generator block and provides as output [Fig. 4; "out"] a specified number of  $\gamma$ -correction voltages and the Vcom-voltage according to a value of an input polarity signal [Fig. 4; POLARITY INVERSION]; and an LCD driver [Fig. 1; 37] for generating a set of display data signals [Fig. 1; O1-ON] based on a set of external data signals [Fig. 1; D0-D2], wherein the LCD driver receives the specified number of the  $\gamma$ -correction voltages output from the voltage selecting block and includes a  $\gamma$ -correction section [Fig. 14; 37b] for correcting voltages of the display data signals based on the specified number of the  $\gamma$ -correction voltages (see Column 16, Line 14 - Column 17, Line 15 and Column 23, Lines 16-32).

However, Tamai does not expressly teach the voltage generator block being directly coupled to the signal controller. This distinct structural coupling arrangement has been incorporated into the pending independent claims (i.e. claims 1 and 12), thereby rendering them allowable.

Any comments considered necessary by the applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Piziali  
19 September 2006



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600